

TECHSPEC<sup>®</sup> 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens



3.5mm Focal Length

Stock **#87-546** **2 In Stock**

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+

S\$332<sup>00</sup>

ADD TO CART

| Volume Pricing |                               |
|----------------|-------------------------------|
| Qty 1-24       | <b>S\$332.00</b> each         |
| Qty 25+        | <b>S\$299.00</b> each         |
| Need More?     | <a href="#">Request Quote</a> |

Product Downloads

General

|                         |         |
|-------------------------|---------|
| Ci Series               | Series: |
| Fixed Focal Length Lens | Type:   |

Physical & Mechanical Properties

|       |              |
|-------|--------------|
| Fixed | Iris Option: |
|       | Length (mm): |

|       |                               |
|-------|-------------------------------|
| 39.38 |                               |
| 50    | Maximum Diameter (mm):        |
| 50    | Outer Diameter (mm):          |
| 97    | Weight (g):                   |
| 2.64  | Maximum Rear Protrusion (mm): |
| 26.50 | Diameter (mm):                |

Optical Properties

|                                                                                      |                                               |
|--------------------------------------------------------------------------------------|-----------------------------------------------|
| 41.2mm - 102.8°                                                                      | Horizontal Field of View @ Max Sensor Format: |
| Horizontal: 41.2mm - 102.3°<br>Vertical: 26.8mm - 82.3°<br>Diagonal: 63.6mm - 117.1° | Field of View at Max Sensor Format:           |
| 41.2mm - 102.8°                                                                      | Horizontal Field of View, 1/1.8" Sensor:      |
| 29.5mm - 87.2°                                                                       | Horizontal Field of View, 1/2" Sensor:        |
| 23.0mm - 74.4°                                                                       | Horizontal Field of View, 1/3" Sensor:        |
| 16.3mm - 57.4°                                                                       | Horizontal Field of View, 1/4" Sensor:        |
| 9.00                                                                                 | Maximum Image Circle (mm):                    |
| 0.0409                                                                               | Numerical Aperture NA, Object Side:           |
| 8 (7)                                                                                | Number of Elements (Groups):                  |
| 3.50                                                                                 | Focal Length FL (mm):                         |
| 0 - ∞                                                                                | Working Distance (mm):                        |
| f/2.8                                                                                | Aperture (f/#):                               |
| 425 - 675nm BBAR                                                                     | Coating:                                      |
| 425 - 675nm BBAR                                                                     | Coating Specification:                        |
| 15.27                                                                                | Entrance Pupil Position (mm):                 |
| 18.31                                                                                | Object Space Principal Plane (mm):            |
| 7.49                                                                                 | Image Space Principal Plane (mm):             |
| -20.94                                                                               | Maximum Distortion (%):                       |
| -15.28                                                                               | Exit Pupil Position (mm):                     |
| VIS                                                                                  | Lens Wavelength Range:                        |

Sensor

|        |                        |
|--------|------------------------|
| 1/1.8" | Maximum Sensor Format: |
| 2.74   | Pixel Size (μm):       |

Threading & Mounting

|                    |                        |
|--------------------|------------------------|
| M105 x 1.00 (Male) | Filter Thread:         |
| #89-848 (Required) | Filter Thread Adapter: |
| M50.0 x 0.5 (Male) | Front Thread:          |
| C-Mount            | Mount:                 |

Environmental & Durability Factors

|            |                           |
|------------|---------------------------|
| -20 to +60 | Storage Temperature (°C): |
|------------|---------------------------|

Regulatory Compliance

Certificate of Conformance:  
[View](#)

Product Details

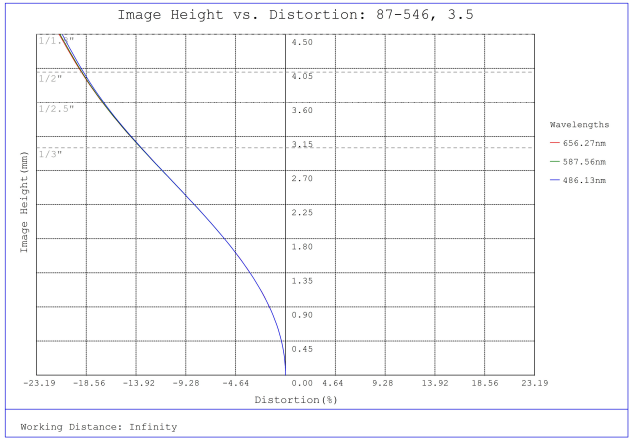
- Up to 2/3", C-Mount Lens
- Up to 7.5 MegaPixels, 2.8µm Pixel Size Sensors
- Instrumentation (Ci) Versions of our C Series Lenses with Streamlined Mechanical Designs and Fixed Apertures
- 3.5mm to 50mm Focal Length
- [Ruggedized \(Cr\) Designs](#) Also Available

TECHSPEC® Ci Series Fixed Focal Length Lenses are a streamlined version of our C Series Fixed Focal Length Lenses. They feature the same low lens-to-lens variation and broadband anti-reflection (BBAR) coating for maximum light transmission, while offering reduced weight and size. An adjustable, lockable focus allows for setting and locking the best focus position for instrumentation integration. TECHSPEC® Ci Series Fixed Focal Length Lenses are designed specifically for volume integration into applications such as factory inspection and automation to benchtop biomedical devices. The Ci Series offers a wide range of aperture options, ensuring maximum flexibility of resolution, throughput, and depth of field.

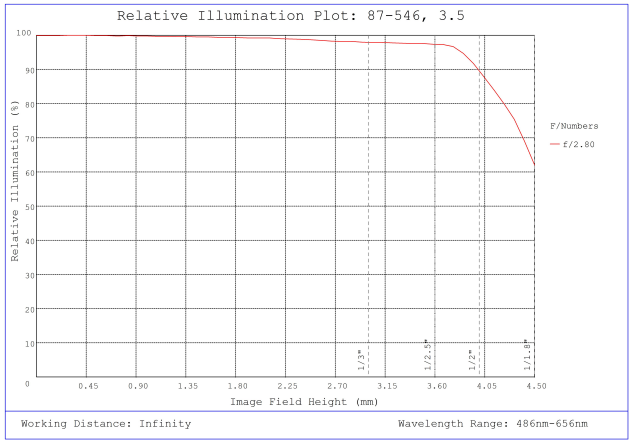
Edmund Optics has created a family of high performance optical designs (the C Series family) and developed 6 customized optomechanical solutions targeted for specific applications. These lens sub-families utilize the same optics as the C Series lenses providing the same optical performance in a variety of optomechanical solutions to meet your application requirements:

- C Series:** Features locking cam focus and iris adjustment and is the most adjustable version of these optical designs; they are the typical high quality machine vision lenses. Also available with a [VIS-NIR Broadband Anti-Reflection \(BBAR\) Coating](#).
- Ci Series:** Simplified mechanics featuring fixed apertures with compact housing. [Industrial Ruggedization](#) for reduced size, cost, and locked focus.
- Cr Series:** All optics glued in place and a locking C-clamp focus ring. [Stabilized Ruggedization](#) for reduced pixel shift and improved focus stability.
- Cx Series:** Modular, flexible mechanics allows lenses to be taken apart for easy integration of accessories such as liquid lenses, apertures, and more.
- Liquid Lens Cx Series:** Designed with an integrated liquid lens for quick autofocus.
- Cw Series:** Waterproof, designed to meet IEC [Ingress Protection](#) Code IPX7 and IPX9K.

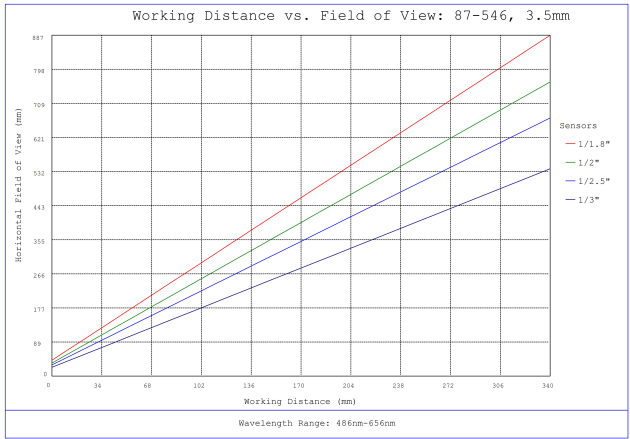
Technical Information



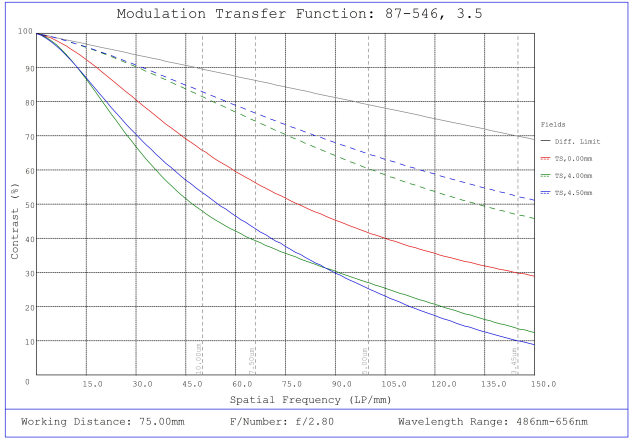
#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Distortion Plot



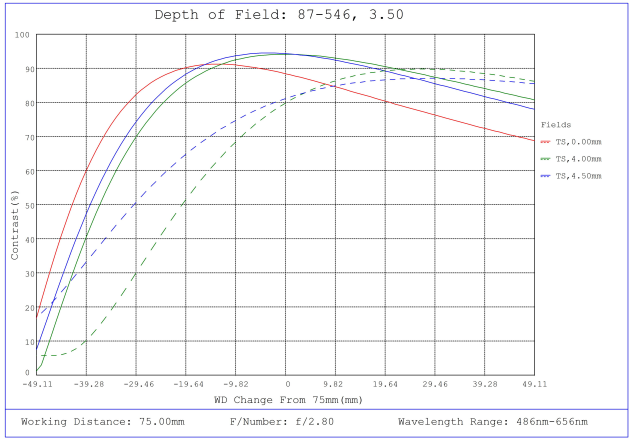
#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Relative Illumination Plot



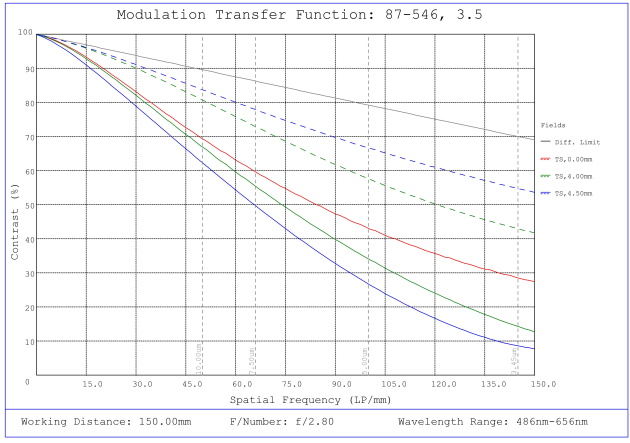
#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Working Distance versus Field of View Plot



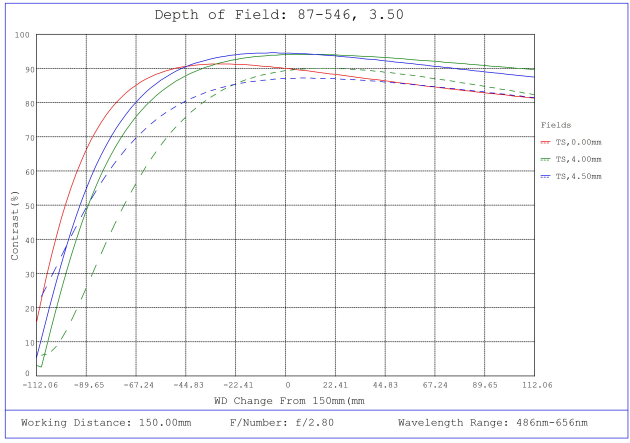
#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 75mm Working Distance, f2.8



#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 75mm Working Distance, f2.8



#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Modulated Transfer Function (MTF) Plot, 150mm Working Distance, f2.8



#87-546, 3.5mm, f/2.8 Ci Series Fixed Focal Length Lens, Depth of Field Plot, 150mm Working Distance, f2.8

| Focal Length | A            | B      | C      | D      |
|--------------|--------------|--------|--------|--------|
| 6mm          | M34.0 x 0.5  | 47.8mm | 34mm   | 1.17mm |
| 12mm         | M22.0 x 0.75 | 29.0mm | 22mm   | 0.96mm |
| 16mm         | M22.0 x 0.75 | 40.8mm | 22mm   | 1.09mm |
| 25mm         | M22.0 x 0.75 | 29.9mm | 22mm   | 1.33mm |
| 35mm         | M25.5 x 0.5  | 41mm   | 22.5mm | 3.82mm |
| 50mm         | M30.5 x 0.5  | 49.5mm | 30.5mm | 2.06mm |

# Compatible Cameras

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